AMENDMENTS TO THE SPECIFICATION:

Kindly amend the specification as follows.

Please amend the paragraph starting on page 2, line 12 as follows:

It is another object of the present invention to provide a method for signal transmission by using a magnetic signal transmission line.

Please amend the paragraph starting on page 4, line 2 as follows:

In the magnetic signal transmission line of the present invention, each single-magnetization domain (or magnetic domain) preferably has a spontaneous magnetization. A magnetic signal transmission line made of a ferromagnetic material has such spontaneous magnetization. A preferable distance between the adjacent single-magnetization domains is such that the interactive energy acting between magnetic dipoles in both the adjacent single-magnetization domains ~~in terms of the~~ measured at a selected absolute temperature ~~is higher than the operational ambient temperature~~ allows for operation of the magnetic signal transmission line at an operational ambient temperature. It is preferable that the direction of the easy axis of the single-magnetization domain reside in parallel with the main surface of the substrate, and in a direction along or perpendicular to the direction of the one-dimensional array of the single-magnetization domains.

Please amend the paragraph starting on page 6, line 2 as follows:

The arrangement of the minute ferromagnetic bodies is such that the distance between adjacent ferromagnetic bodies is as small as possible and typically equivalent to the dimensions of the ferromagnetic body. The distance between adjacent single-magnetization domains is such that an interactive force acts between magnetic dipoles in the adjacent ferromagnetic bodies and that the interactive energy between the adjacent ferromagnetic

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bodies ~~in terms of the~~ measured at a selected absolute temperature ~~is higher than the operational ambient temperature~~ allows for operation of the magnetic signal transmission line at an operational ambient temperature, typically a room temperature.

Please amend the paragraph starting on page 7, line 19 as follows:

Each magnetic dot 10 is of a column shape having a diameter of 20 nm and a height of 10 nm. The distance between adjacent two of the magnetic dots 10 is 10 nm. Since the thickness of the magnetic wall of a bulk of iron is about 30 nm, the magnetic dot 10 having those dimensions, smaller than 30 nm, has a single-magnetization domain structure. The interactive energy acting between the magnetic dipoles in adjacent magnetic dots 10 is obtained from the distance between the magnetic dots 10, the dot dimensions and the saturation magnetization of iron, and is calculated at about 10,000K ~~in terms of the absolute temperature~~. This allows the magnetic dots 10 to operate at a room temperature. In this embodiment, the equality between the length and the width of the magnetic dot provides no in-plane anisotropy therein.

Please amend the paragraph starting on page 8, line 7 as follows:

Referring to Figs. 3 and 4, a magnetic signal transmission line according to a second embodiment of the present invention is similar to the first embodiment except for the configuration of the magnetic dots 10 A. Specifically, the one-dimensional array of magnetic dots 10 A is formed by etching an iron wire having a width of 30 nm. The army includes 10,000 magnetic dots 10 A having a length of 20 nm, a width of 30 nm and a height of 10 nm, whereby the magnetic dots 10 A are arranged with a pitch of 30 nm and a distance of 10 nm between adjacent magnetic dots 10 A. The interactive energy acting between the magnetic dipoles in the adjacent magnetic dots 20 is obtained by the distance between dots, dot dimensions and the

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saturation magnetization of iron, and calculated at 10,000K ~~in terms of the absolute temperature~~. The calculated interactive energy allows the magnetic dots to operate at a room temperature. The larger value for the width compared to the length as measured parallel to the substrate surface provides an in plane anisotropy, wherein the magnetization has an easy axis in the direction perpendicular to the direction of the array.

Please amend the paragraph starting on page 8, line 25 as follows:

Referring to Figs. 5 and 6, a magnetic signal transmission line according to a third embodiment of the present invention is similar to the first embodiment except for the distance between the magnetic dots 10B. The distance is selected at 5 nm in the present embodiment, which allows the magnetic dots 10B to have an interactive energy [[of]] measured at 20,000K ~~in terms of the absolute temperature~~ between magnetic dipoles in the adjacent dots. In Fig. 5, the spontaneous magnetization of each magnetic dot 10B is depicted by an arrow, and is aligned with the direction of the array except for the location designated by numeral 12.

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